

The invention claimed is:

1. A food patty-forming apparatus for forming food patties from pressurized food product, comprising:

a frame;

5 a first surface carried by said frame;

a second surface carried by said frame, said second surface spaced from and facing said first surface;

a source of pressurized food product;

10 a mold plate guided to reciprocate longitudinally between said first and second surfaces between a fill position and a discharge position, said mold plate having at least one cavity that is open to said source of pressurized food product through said second surface when in said fill position and that is outside said first and second surfaces when in said discharge position, and a mold pattern arranged on one first face of said cavity, said mold pattern comprising open
15 areas and solid areas, said solid areas having a position extending in a non-longitudinal direction; and

a mechanism operatively connected to said mold plate to reciprocate said mold plate between said fill position and said discharge position.

20 2. The apparatus according to claim 1, comprising a knockout plunger having open areas corresponding to said solid areas of said pattern and solid areas corresponding to said open areas of said pattern, and shaped to allow said

solid areas of said plunger to penetrate into said cavity past said first face of said cavity.

3. The apparatus according to claim 1, wherein said cavity is open to
5 said source of pressurized food through a second face of said cavity on a side of said cavity opposite said first face.

4. The apparatus according to claim 3, wherein said second surface
comprises breather holes for venting air during filling of said cavity.
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5. The apparatus according to claim 1, wherein said solid areas of
said pattern comprise a cross shape.

6. The apparatus according to claim 1, wherein said solid areas of
15 said plunger comprise a cup configuration.

7. The apparatus according to claim 1, wherein said solid portions of
said pattern comprise curved portions.

20 8. The apparatus according to claim 1, wherein said solid portions of
said pattern comprise oblique portions.

9. The apparatus according to claim 1, wherein said solid portions of said pattern are carried on an insert plate that is fastened to surrounding portions of said mold plate.

5 10. The apparatus according to claim 9, wherein said insert plate comprises an outside surface facing away from said cavity that is flush with a surrounding surface of said mold plate.

10 11. Tooling for an apparatus that includes a mold plate having a patty-forming cavity for a food patty-forming apparatus for forming food patties from pressurized food product, the apparatus having food product delivery configured to deliver pressurized food product into a fill opening, a mechanism operatively connected to said mold plate to reciprocate said mold plate between a fill position wherein said cavity is open to said fill opening to receive pressurized food
15 product, and a discharge position wherein said cavity is exposed, the tooling comprising:

a mold plate having a cavity having a first open face and an opposite second open face on opposite sides of said mold plate, a mold pattern arranged adjacent said first open face of said cavity, said mold pattern comprising open
20 areas and solid areas, said solid areas recessed from said second open face of said cavity, said solid areas having a portion that extends in a non-longitudinal direction.

12. The tooling according to claim 11, comprising a knockout plunger having open areas corresponding to said solid areas of said pattern and solid areas corresponding to said open areas of said pattern, and shaped to allow said solid areas of said plunger to penetrate into said cavity past said first face of said cavity, when said mold plate is in said discharge position.

13. The tooling according to claim 11, wherein said cavity is openable to said food product delivery through said second open face of said cavity.

14. The tooling according to claim 11, comprising a breather plate configured to guide reciprocation of said mold plate and having breather holes for venting air during filling of said cavity.

15. The tooling according to claim 11, wherein said solid areas of said pattern comprise a cross shape.

16. The tooling according to claim 11, wherein said solid areas of said plunger comprises a cup configuration.

17. The tooling according to claim 11, wherein said solid portions of said pattern comprises curved portions.

18. The tooling according to claim 11, wherein said solid portions of said pattern comprises oblique portions.

19. The tooling according to claim 11, wherein solid portions of said
5 pattern are carried on an insert plate that is fastened to surrounding portions of said mold plate.

20. The tooling according to claim 19, wherein said insert plate
comprises an outside surface facing away from said cavity that is flush with a
10 surrounding surface of said mold plate.